DATA REVIEW FOR ACUTE DERMAL TOXICITY TESTING (OPPTS 870.1200)

Product Manager: 33
MRID No.: 475448-05

Reviewer: CSC and Earl Goad (CTT)
Completion Date: January 31, 2008
Study No.: B66565

Testing Laboratory: RCC Ltd., Füllinsdorf, Switzerland
Author: Dr. C. Simon

Quality Assurance (40 CFR §160.12): A Quality Assurance (QA) statement was included. A statement of Good Laboratory Practice (GLP) compliance was included stating that: "The stability of the test item dilutions under the test conditions is unknown. The formulation trials were performed before the study initiation date. Therefore, they are excluded from this statement. This study has been performed in compliance with the Swiss Ordinance relating to Good Laboratory Practice, adopted May 18th, 2005 [RS 813.112.1]. This Ordinance is based on the OECD Principles of Good Laboratory Practice, as revised in 1997 and adopted November 26th, 1997 by decision of the OECD Council [C(97)186/Final]. There were no circumstances that may have affected the quality or integrity of the data."

Test Material: HeiQ Silver Additive
Batch #: P07-0030 / Solid, brown

Dosage: 2,000 mg/kg
(administered by diluting in polyethylene glycol 300 (PEG 300))

Species: 10 Rats; HanRcc: WIST(SPF)
Sex: 5 Males and 5 Females.
Age: Young adult (Males: 8 weeks old; Females: 11 weeks old)
Weight: Males: 249.1-257.5 grams; Females: 189.4-203.7 grams; day of treatment
Source: RCC Ltd., Füllinsdorf, Switzerland
Housing: Temperature Range: 22±3°C
Humidity Range: 30-70%
Photoperiod: 12-hour light/12-hour dark cycle
Acclimation: 6 days

Summary:

1. **Acute Dermal LD_{50} (mg/kg)**: Male and Female Rats: >2,000 mg/kg

2. **The estimated acute dermal LD_{50} is** greater than 2,000 mg/kg in male and female rats.

3. **Toxicity Category**: III **Classification**: Acceptable

Procedure (Deviations from 870.1200): The deviations recorded here are minor deficiencies in reporting or slight departures from study guidelines, and may not necessarily affect study outcome, with exceptions noted in the above memo

- The guidelines specify that females used in the study should be nulliparous and non-pregnant. The laboratory did not specify whether females used in the test were nulliparous and non-pregnant.
- The guidelines state that animals should be housed individually. The laboratory indicated that animals were housed in groups of five per sex during acclimatization and individually during treatment and observation.
- The guidelines state that PEG vegetable oil is an acceptable alternative vehicle to water or saline; however, the inability to use water or saline must be justified in the report. The laboratory report did not describe why PEG 300 was chosen as the vehicle.
- The guidelines state that body weight changes should be calculated and recorded when survival exceeds one day. Individual body weights of test animals were recorded; however, body weight changes were not reported.

Results:

Reported Mortality

Dose Level (mg/kg)	Number Dead / Number Tested		
	Males	Females	Total
2,000	0 / 5	0 / 5	0 / 10

Observations:
No deaths occurred during the study.

No clinical signs were observed during the course of the study.

At removal of the application patch, a slight local erythema was observed in all treated animals (with the exception of animal No. 6) which persisted up to Days 3 or 4 in the females. Additionally, a brownish staining produced by the test item was present in all males 2 to 7 or 10 days after test item exposure and 2 to 4, 5, 7 or 15 days after treatment in the females. Slight scaling was recorded on Day 8 in all males and persisted up to Day 10 or 11 in two males. This symptom was also noted in four females at the same observation time point and persisted up to Day 11 or 12 in three females. Furthermore, slight scabs were observed in one male from Day 8-14 and three females on Day 8 and again from Days 10 or 11 up to Day 15 in two females.

The body weight of the animals was within the range commonly recorded for this strain and age. However, animal No. 10 did not gain weight from the day of treatment until Day 8 but recovered until the end of observation time.

Gross Necropsy Findings:
No macroscopic findings were recorded at necropsy.